



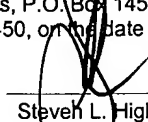
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February 11, 2005

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| February 11, 2005 |  |
| Date | Steven L. Highlander |

MS AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

RE: *U.S. Patent Application No. 10/791,219 entitled "INTRACELLULAR SIGNALING PATHWAYS IN DIABETIC SUBJECTS" – Lois Weisman*
Our reference: IOWA:048US
UIRF Ref. 03039


Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references B1 and C1-C62.

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/IOWA:048US.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,


Steven L. Highlander
Reg. No. 37,642

SLH/kvp
Encl.: as noted



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Lois Weisman

Serial No.: 10/791,219

Filed: March 2, 2004

For: INTRACELLULAR SIGNALING
PATHWAYS IN DIABETIC SUBJECTS

Group Art Unit: 1653

Examiner: Unknown

Atty. Dkt. No.: IOWA:048US

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INFORMATION DISCLOSURE STATEMENT

MS AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

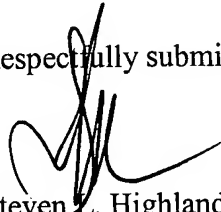
In accordance with 37 C.F.R §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be

an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/IOWA:048US.

Applicant respectfully requests that the listed documents be made of record in the present case.

Respectfully submitted,



Steven L. Highlander
Reg. No. 37,642
Attorney for Applicant

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Date: February 11, 2005

Form PTO-1449 (modified)

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List of Patents and Publications for Applicant's

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Atty. Docket No.

IOWA:048US

Serial No.

10/791,219

Applicant

Lois Weisman

Filing Date:

March 2, 2004

Group:

1653

U.S. Patent Documents

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Foreign Patent Documents

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Other Art

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U.S. Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Name | Class | Sub Class | Filing Date of App. |
|-------------|-----------|-----------------|------|------|-------|-----------|---------------------|
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Foreign Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Country | Class | Sub Class | Translation Yes/No |
|-------------|-----------|-----------------|----------|---------|-------|-----------|--------------------|
| | B1 | WO 02/092626 | 11/21/02 | WIPO | | | English |

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam. Init. | Ref. Des. | Citation |
|-------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | C1 | Bauer <i>et al.</i> , "Multiprotein complexes from eukaryotes," Database OPOP Online, XP002299766, Database accession No. AX595285, 2002. |
| | C2 | Bonangelino <i>et al.</i> , "Vac7p, a novel vacuolar protein, is required for normal vacuole inheritance and morphology," <i>Mol. Cell Biol.</i> , 17(12):6847-6858, 1997. |
| | C3 | Bonangelino <i>et al.</i> , "Osmotic stress-induced increase of phosphatidylinositol 3,5-bisphosphate requires Vac14p, an activator of the lipid kinase Fab1p, <i>J. Cell Biol.</i> , 156(6):1015-1028, 2002. |
| | C4 | Bryant <i>et al.</i> , "Retrograde traffic out of the yeast vacuole to the TGN occurs via the prevacuolar/endosomal compartment," <i>J. Cell Biol.</i> , 142(3):651-653, 1998. |
| | C5 | Dove <i>et al.</i> , "Osmotic stress activates phosphatidylinositol-3,5-bisphosphate synthesis," <i>Nature</i> , 390(6656):187-192, 1997. |
| | C6 | Dove <i>et al.</i> , "Vac14 controls PtdIns(3,5)P(2) synthesis and Fab1-dependent protein trafficking to the multivesicular body," <i>Curr. Biol.</i> , 12(11):885-893, 2002. |
| | C7 | Foti <i>et al.</i> , "Sac1 lipid phosphatase and Stt4 phosphatidylinositol 4-kinase regulate a pool of phosphatidylinositol 4-phosphate that functions in the control of the actin cytoskeleton and vacuole morphology," <i>Mol. Biology of the Cell</i> , 12(8):2396-2411, 2001. |
| | C8 | Gary <i>et al.</i> , "Fab1p is essential for ptdins(3)P 5-kinase activity and the maintenance of vacuolar size and membrane homeostasis," <i>J. Cell Biol.</i> , 143(1):65-79, 1998. |

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EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------|--------------------------|
| Form PTO-1449 (modified) | | Atty. Docket No. IOWA:048US | Serial No. 10/791,219 |
| List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | Applicant Lois Weisman | |
| | | Filing Date: March 2, 2004 | Group: 1653 |
| U.S. Patent Documents <i>See Page 1</i> | Foreign Patent Documents <i>See Page 1</i> | Other Art <i>See Page 1</i> | |

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

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|-------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | C9 | Gary <i>et al.</i> , "Regulation of Fab1 phosphatidylinositol 3-phosphate 5-kinase pathway by Vac7 protein and fig4, a polyphosphoinositide phosphatase family member," <i>Mol. Biol. Cell</i> , 13(4):1238-1251, 2002. |
| | C10 | GenBank Accession Number AA036005. |
| | C11 | GenBank Accession Number AA050423. |
| | C12 | GenBank Accession Number AA058300. |
| | C13 | GenBank Accession Number AA273168. |
| | C14 | GenBank Accession Number AA497446. |
| | C15 | GenBank Accession Number AA670618. |
| | C16 | GenBank Accession Number AAD12702. |
| | C17 | GenBank Accession Number AAF54829. |
| | C18 | GenBank Accession Number AL527155. |
| | C19 | GenBank Accession Number AL535971. |
| | C20 | GenBank Accession Number AL555680. |
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| | C22 | GenBank Accession Number BE409891. |
| | C23 | GenBank Accession Number BE573148. |
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| | C25 | GenBank Accession Number BE728471. |
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| | C27 | GenBank Accession Number BE901196. |
| | C28 | GenBank Accession Number BE937614. |
| | C29 | GenBank Accession Number BF023070. |
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| | C31 | GenBank Accession Number BF091052. |
| | C32 | GenBank Accession Number BF162275. |
| | C33 | GenBank Accession Number BF237130. |
| | C34 | GenBank Accession Number BF325708. |
| | C35 | GenBank Accession Number BF720417. |
| | C36 | GenBank Accession Number BG079707. |
| | C37 | GenBank Accession Number BG107035. |
| | C38 | GenBank Accession Number CAB00043. |
| | C39 | GenBank Accession Number CAB08779. |
| | C40 | GenBank Accession Number W09660. |
| | C41 | Guo <i>et al.</i> , "On the relationship of OSW-1 to the cephalostatins," <i>Bioorg. Med. Chem. Lett.</i> , 9(3):419-424, 1999. |
| | C42 | Guo <i>et al.</i> , "SAC1-like domains of yeast SAC1, INP52, and INP53 and of human synaptojanin encode polyphosphoinositide phosphatases," <i>J. Biol. Chem.</i> , 274:12990-12995, 1999. |
| | C43 | Hughes <i>et al.</i> , "SAC1 encodes a regulated lipid phosphoinositide phosphatase, defects in which can be suppressed by the homologous Inp52p and Inp53p phosphatases," <i>J. Biol. Chem.</i> , 275(2):801-808, 2000. |
| | C44 | Ikonomov <i>et al.</i> , <i>J. Biol. Chem.</i> , "Functional dissection of lipid and protein kinase signals of PIKfyve reveals the role of PtdIns 3,5-P2 production for endomembrane integrity," 277(11):9206-9211, 2002. |
| | C45 | Ikonomov <i>et al.</i> , "Mammalian cell morphology and endocytic membrane homeostasis require enzymatically active phosphoinositide 5-kinase PIKfyve," <i>J. Biol. Chem.</i> , 276(28):26141-26147, 2002. |
| | C46 | Itoh <i>et al.</i> , "Autophosphorylation of type I phosphatidylinositol phosphate kinase regulates its lipid kinase activity," <i>J. Biol. Chem.</i> , 275(25):19389-19394, 2000. |
| | C47 | Jones <i>et al.</i> , "The identification of phosphatidylinositol 3,5-bisphosphate in T-lymphocytes and its regulation by interleukin-2," <i>J. Biol. Chem.</i> , 274(26):18407-18413, 1999. |

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|-------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | C48 | Johnston <i>et al.</i> , "YL86-yeast," <i>Nature</i> , abstract, 387:87-90, 2001. |
| | C49 | Maehama and Dixon, "The tumor suppressor, PTEN/MMAC1, dephosphorylates the lipid second messenger, phosphatidylinositol 3,4,5-trisphosphate," <i>J. Biol. Chem.</i> , 273(22):13375-13378, 1998. |
| | C50 | McEwen <i>et al.</i> , 'Complementation analysis in PtdInsP kinase-deficient yeast mutants demonstrates that <i>Schizosaccharomyces pombe</i> and murine Fab1p homologues are phosphatidylinositol 3-phosphate 5-kinases," <i>J. Biol. Chem.</i> , 274(48):33905-33912, 1999. |
| | C51 | Ota <i>et al.</i> , "FYV1_HUMAN," Accession Number Q9Y2I7, October 16, 2001. |
| | C52 | Sbrissa <i>et al.</i> , "PIKfyve, a mammalian ortholog of yeast Fab1p lipid kinase, synthesizes 5-phosphoinositides. Effect of insulin," <i>J. Biol. Chem.</i> , 274(31):21589-21597, 1999. |
| | C53 | Sbrissa <i>et al.</i> , "PIKfyve lipid kinase is a protein kinase: downregulation of 5'-phosphoinositide product formation by autophosphorylation," <i>Biochemistry</i> , 39(51):15980-15989, 2000. |
| | C54 | Sbrissa <i>et al.</i> , "Phosphatidylinositol 3-phosphate-interacting domains in PIKfyve," <i>J. Biol. Chem.</i> , 277(8):6073-6079, 2002. |
| | C55 | Shisheva <i>et al.</i> , "Cloning, characterization, and expression of a novel Zn ²⁺ -binding FYVE finger-containing phosphoinositide kinase in insulin-sensitive cells," <i>Mol. Cell Biol.</i> , 19(1):623-634, 1999. |
| | C56 | Shisheva <i>et al.</i> , "Localization and insulin-regulated relocation of phosphoinositide 5-kinase PIKfyve in 3T3-L1 adip," <i>J. Biol. Chem.</i> , 276(15):11859-11869, 2001. |
| | C57 | Srinivasan <i>et al.</i> , "Disruption of three phosphatidylinositol-polyphosphate 5-phosphatase genes from <i>Saccharomyces cerevisiae</i> results in pleiotropic abnormalities of vacuole morphology, cell shape, and osmohomeostasis," <i>Eur. J. Cell Biol.</i> , 74(4):350-360, 1997. |
| | C58 | Stolz <i>et al.</i> , "INP51, a yeast inositol polyphosphate 5-phosphatase required for phosphatidylinositol 4,5-bisphosphate homeostasis and whose absence confers a cold-resistant phenotype," <i>J. Biol. Chem.</i> , 273(19):11852-11861, 1998. |
| | C59 | Stolz <i>et al.</i> , "Identification and characterization of an essential family of inositol polyphosphate 5-phosphatases (INP51, INP52 and INP53 gene products) in the yeast <i>Saccharomyces cerevisiae</i> ," <i>Genetics</i> , 148(4):1715-1729, 1998. |

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| | C60 | Taylor <i>et al.</i> , "Myotubularin, a protein tyrosine phosphatase mutated in myotubular myopathy, dephosphorylates the lipid second messenger, phosphatidylinositol 3-phosphate," <i>Proc. Natl. Acad. Sci., USA</i> , 97(16):8910-8915, 2000. |
| | C61 | Vancurova <i>et al.</i> , "Regulation of phosphatidylinositol 4-phosphate 5-kinase from <i>Schizosaccharomyces pombe</i> by casein kinase I," <i>J. Biol. Chem.</i> , 274(2):1147-1155, 1999. |
| | C62 | Whiteford <i>et al.</i> , "Phosphatidylinositol 3,5-bisphosphate defines a novel PI 3-kinase pathway in resting mouse fibroblasts," <i>Biochem. J.</i> , 323(pt3):597-601, 1997. |

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